

## CLAIMS

1. An optical storage carrier for use in an optical scanning device, the carrier comprising:
  - an entrance surface;
  - an information layer including a relief structure representative of readable data;
  - 5 a transparent layer located between the entrance layer and the information layer through which the data is read from the information layer; and,
  - a lead-in zone including informative data indicating at least one radius where a thickness variation of the transparent layer potentially occurs.
- 10 2. The optical storage carrier of Claim 1, wherein the informative data is permanent.
3. The optical storage carrier of Claim 1, wherein the informative data comprises the radius.
- 15 4. The optical storage carrier of Claim 1, wherein the informative data comprises a pointer to the radius.
5. The optical storage carrier of Claim 1, wherein the informative data further comprises a severity indicator representative of a coarseness of the thickness variation potentially  
20 occurring at the radius.
6. The optical storage carrier of Claim 1, wherein the informative data is inscribed in the lead-in zone during manufacturing of the carrier.
- 25 7. The optical storage carrier of Claim 1, wherein the radius is deducted from tests performed on carriers manufactured by a same manufacturing process as the carrier.
8. A device comprising:
  - a receptacle for receiving an optical storage carrier comprising an entrance layer, an  
30 information layer including a relief structure representative of readable data and a transparent

layer located between the entrance layer and the information layer through which the data is read from the information layer and a lead-in zone;

a radiation beam arrangement for focusing a light beam on the information layer through the transparent layer;

5 a measurement unit for measuring the thickness of the transparent layer at the radius indicated in the informative data;

a servo for adjusting a focus of the light beam on the information layer at the radius based on the measured thickness.

10 9. The device of Claim 8, wherein the measurement unit is adapted to derive respective thicknesses for other radii by interpolation or extrapolation based on the measured thickness.

10. The device of Claim 8, wherein the servo adjusts the focus at a respective radii based on the respective derived thickness.

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11. The device of Claim 8, wherein the measurement unit is adapted to perform another measurement of the thickness of the transparent layer at another radius.

20 12. A method for detecting a thickness variation on an optical storage carrier, the method comprises:

enabling receiving the optical storage carrier comprising an entrance layer, an information layer including a relief structure representative of readable data and a transparent layer located between the entrance layer and the information layer through which the data is read from the information layer;

25 enabling accessing informative data stored in a lead-in zone of the optical storage carrier, the informative data indicating a radius on the carrier where a variation of a thickness of the transparent layer potentially occurs;

performing a measurement of the thickness variation of the transparent layer at the indicated radius; and,

30 correcting a focusing of a radiation beam focusing on the information layer through the transparent layer, the radiation beam arriving on the carrier via the entrance face based on the measured thickness variation.

13. The method of Claim 12, further comprising:

determining the thickness variation of the transparent layer at another radius not indicated in the informative data by extrapolation or interpolation based on the thickness variation measured at the radius indicated in the informative data.